

REMARKS

After entry of the present amendment, claims 1-7 and 16-48 are pending. Applicant respectfully request reconsideration of claims based on this Amendment.

Paragraphs on page 12, line 23; page 13, line 20; page 16, line 20; page 21, line 4; and page 26, line 28 in the specification have been amended to correct typographical errors. No new matter has been added.

Claims 1, 19, 24, 27, 35, and 41 have been amended.

Claim 1 has been amended to more clearly define the application. More specifically, claim 1 was amended to require the multiplexer or switching device "to measure impedance between the selected pair of the plurality of micro-electrodes in order to determine a satisfactory pair of the plurality of micro-electrodes to form the electrical pathway." Support for this amendment can be found on page 18, lines 1-22; page 20, line 16, through page 21, line 3; page 21, line 23, through page 23, line 18. No new matter has been added.

Claims 19, 27, and 29 were amended to correct the antecedent basis for "the multiplexer". Claims 24 and 35 were amended to correct the antecedent basis for "the endo-adominal [sic] cavity" in subparagraph (a) and to correct typographical errors. Claims 35 and 41 were amended to correct the antecedent basis for "the impedance". No new matter has been added.

Only claims 1-3 have been rejected over the prior art. Applicants thank the Examiner for effectively finding that claims 4-7 and 16-48 are free of the prior art.

STATUS OF APPLICATION

As the Examiner will recall, the present application was originally submitted without drawings. A petition is now pending (submitted October 25, 2002), in which Applicants respectfully requested reconsideration of an earlier filed Petition, and that the drawings be added to the specification and that the original filing date of February 6, 2001, be accorded the present application.

In the response to the restriction requirement filed November 25, 2002, Applicants also argued that the drawings would not constitute new matter. Moreover, Applicants respectfully suggested that the lack of drawings did not render

the application incomplete but only informal. Applicants respectfully suggested that the Examiner, under MPEP 608.02, request that such drawings be submitted to correct this informality. The entire argument regarding the claims presented in the response of November 25, 2002, is hereby incorporated by reference.

The Examiner did not address the issues raised by Applicants as to the drawings in the response filed November 25, 2002. Applicants have contacted the Examiner on April 22, 2003, to further discuss the issues concerning the drawings. In that interview, the Examiner indicated that Applicants should file a response to the outstanding Office Action. The present response addresses the issues raised in the outstanding Office Action. **In addition, Applicants respectfully request the Examiner to address the issues raised regarding the drawings in the response filed November 25, 2002 (and which are incorporated by reference herein).**

REJECTION OF CLAIMS UNDER 35 U.S.C. §112

Claims 19-21, and 24-44 have been rejected under 35 U.S.C. §112, second paragraph as being indefinite. Applicant respectfully requests reconsideration of these claims based on the present amendment.

Claims 19, 27, and 29 were rejected because of improper antecedent basis for "the multiplexer". Claims 19 and 27 have been amended to correct this problem. Claim 29, which ultimately depends on amended claim 27, now has proper antecedent bases. Support for this amendment can be found in the specification at page 18, line 30 through page 19, line 4:

"The multiplexer or switching device 20, preferably contained on a computer chip or other programable device, can be used to select or evaluate various combinations of micro-electrodes 16 to allow selection of the appropriate pulsing micro-electrode 16A and receiving micro-electrode 16B." (Emphasis added).

Applicant respectfully requests that this rejection be withdrawn.

Claim 24 was rejected because it lacked clarity. Applicants thank the Examiner for pointing out the typographical error. Claim 24 has been amended to

correct this typographical error (replaced "though" with the word "through").

Applicant respectfully requests that this rejection be withdrawn.

Claims 24 and 35 were rejected because "the endo-adominal [sic] cavity" in subparagraph (a) lacked antecedent basis. The preambles of claims 24 and 35 have been amended to provide proper antecedent basis. Applicant respectfully requests that this rejection be withdrawn.

Claims 35 and 41 were rejected because the phrase "the impedance" lacks antecedent basis. Claims 35 and 41 have been amended to provide proper antecedent basis. Applicant respectfully requests that this rejection be withdrawn.

Rejected claims 20 and 21 ultimately depend on rejected claim 19. Applicants respectfully submit that amendment of claim 19 overcomes the rejections of claims 20 and 21 as well and requests that this rejection be withdrawn.

Rejected claims 25-34 ultimately depend on rejected claim 24. Applicants respectfully submit that amendment of claim 24 overcomes the rejections of claims 25-34 as well and requests that this rejection be withdrawn.

Rejected claims 36-40 ultimately depend on rejected claim 34. Applicants respectfully submit that amendment of claim 35 overcomes the rejections of claims 36-40 as well and requests that this rejection be withdrawn.

Rejected claims 42-44 ultimately depend on rejected claim 41. Applicants respectfully submit that amendment of claim 42 overcomes the rejections of claims 42-44 as well and requests that this rejection be withdrawn.

DOUBLE PATENTING

Claims 1-7, 16-44 were provisionally rejected under 35 U.S.C. § 101 as claiming the same invention as that of claims 1-7, 16-44 of co-pending Application Serial Number 10/036,978. Co-pending Application Serial Number 10/036,978 was filed at the time the problems with the drawings in the present application were discovered. As noted above, a petition, as well as arguments directed to the Examiner, are currently pending. Once the issue of the drawings in the present case are finally resolved (through final appeal if appropriate), Applicant will cancel the appropriate application. Applicant respectfully requests that this objection be

reserved, in both the present case and co-pending Application Serial Number 10/036,978, until this issue regarding the drawings is finally resolved.

REJECTION OF CLAIMS 1-2 UNDER 35 U.S.C. §102(b)

Claims 1-2 have been rejected under 35 U.S.C. §102(b) as being anticipated by Testerman et al., U.S. Patent 5,843,147 (December 1, 1998). Applicant respectfully submit that the amended claims are neither anticipated by, nor rendered obvious, by Testerman et al. alone or combined with any of the art of record.

Testerman et al. provides an implantable device for use in the eye. This implantable device has a body of nonconductive material 12 and electrodes 14 with at least one lead wire in electrical contact with each of the electrodes. The lead wires are then brought out and bundled together 16 and connected to a switching apparatus 210 which is connected to a stimulator 200 or impulse generating device. See, for example Figure 3; col. 6, lines 33-66. The switching device 210 allows for selection of the electrodes as either anodes, cathodes, or in an open configuration in order to minimize current spread to surrounding muscles or nerves not the target of stimulation. Col. 7, lines 8-22.

The present invention differs in a number of ways from Testerman et al. More specifically, independent claim 1, as amended, requires, among other limitations, that

“a multiplexer or switching device to measure impedance between the selected pair of the plurality of micro-electrodes in order to determine a satisfactory pair of the plurality of micro-electrodes to form the electrical pathway.”

Testerman et al. does not meet or suggest this limitation. Testerman et al. does not teach or suggest a “multiplexer or switching device to measure impedance between the selected pair of the plurality of micro-electrodes.” Nor does Testerman et al. Teach or suggest that measurement of impedance for the various pairs of the micro-electrodes would allow selection of a satisfactory pair of micro-electrodes for treatment of neuroglial or neuro-muscular tissue.

Testerman et al. teaches that the electrode "can be connected to a stimulator 200 (FIG. 4) by way of a switching apparatus 210 (FIG. 4) as an anode, a cathode, or in an unused or open configuration." Col 4, lines 40-43. The switching device of Testerman et al. is aimed at eliminating current spread to surrounding muscles or nerves of the eye. For example, the preferred embodiment details a "guarded multipolar configuration," in which two electrodes are used as "current guarding electrodes," preventing current spread from the "active electrode" circumscribed. Col. 7, lines 10-22.

The "multiplexer or switching device" of the present invention offers significant advantages over the limited switching apparatus of Testerman et. al. As shown in Figures 1 and 6-7 of the present invention, the switching device is a dynamic system that "can be used to select or evaluate various combinations of micro-electrodes 16 to allow selection of the appropriate pulsing micro-electrode 16A and receiving micro-electrode 16B." Page 19, lines 2-5. The present invention utilizes a switching device that determines the "optimum electrical pathway" by measuring the impedance and selecting the "optimum micro-electrodes for use." Page 20, line 16 - Page 21, line 26.

Thus, the implant device described in Testerman et al. would not be expected to use a switching device that determines or evaluates between the selected pairs of the plurality of micro-electrodes in order to pick a good or satisfactory pair as described in Claim 1. Rather, Testerman et al. lacks this dynamic switching device and only describes a "switching apparatus for *connecting* the electrodes in various configurations." (Emphasis added). Col. 14, lines 47-48.

Claims 1 and 2 are not anticipated by Testerman et al. Applicant respectfully requests that this rejection be withdrawn.

REJECTION OF CLAIM 3 UNDER 35 U.S.C. §103(a)

Claim 3 has been rejected under 35 U.S.C. §103(a) as being obvious in view of Testerman et al., U.S. Patent 5,843,147 (December 1, 1998). Applicants respectfully submit that the amended claims are not rendered "obvious to one

having ordinary skill in the art" in view of Testerman et al. alone or combined with any art of record.

As indicated above, independent claim 1, as amended, is not anticipated or rendered obvious by Testerman et al. That argument is incorporated by reference herein. Thus, claim 3, which adds a further limitation, cannot be anticipated or obvious over Testerman et al.

Claim 3 is not obvious over Testerman et al. alone or combined with any of the art of record. Applicant respectfully requests that this rejection be withdrawn

CONCLUSION


Applicant respectfully submit that all rejections and objections have been overcome and that all pending claims are in condition for allowance.

If the Examiner believes that a telephonic or personal interview would be helpful to terminate any issues which may remain in the prosecution of the Application, the Examiner is requested to telephone Applicant's attorney at the telephone number set forth herein below.

The Commissioner is hereby authorized to charge any additional fees which may be required in the Application to Deposit Account No. 06-1135.

Respectfully submitted,

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